IN THE CLAIMS:

1. (Currently Amended) A high frequency current mirror comprising:

a current mirror having an input node, a cascode node, and an output node configured to provide an output signal from the current mirror;

a first current mirror path between the input node and the cascode node;

a second current mirror path between the input node and the cascode node;

at least one semiconductor device in the first current mirror path; and

at least one semiconductor device in the second current mirror path;

a device configured to ~~provide~~ modify the transfer function of either of the first path or the second path to thereby increase the bandwidth of a current mirror by maintaining an AC ground at the cascode ~~caseade~~ node.

2. (Original) The current mirror of Claim 1, wherein the at least one semiconductor device in the first current mirror path comprises a field effect transistor and at least one semiconductor device in the second current mirror path comprises at a field effect transistor.

3. (Original) The current mirror of Claim 1, wherein the device comprises delay element.

4. (Original) The current mirror of Claim 1, further comprising a device in both the first current mirror path or the second current mirror path configured to maintain an AC ground at the output.

5. (Original) The current mirror of Claim 3, wherein the delay element comprises a resistor-capacitor network.

6. (Original) The current mirror of Claim 5, wherein the capacitance of the resistor-capacitor network is generated by a conductor trace, a semiconductor device input capacitance, or both.

7. (Currently Amended) A high frequency amplifier comprising:

an input configured to receive an input signal;

a node configured to divide the input signal into a first signal on a first signal path and a second signal on a second signal path, wherein the first signal path comprises a lesser number of semiconductor junctions than the second signal path;

a V_c node connected to both the first signal path and the second signal path~~, the V_e node~~; and

a device in the first path configured to delay the first signal to thereby maintain the first signal out of phase with the second signal at the V_c node to thereby create an AC ground at the V_c node.

8. (Original) The amplifier of Claim 7, wherein the delay comprises a resistor-capacitor network.

9. (Original) The amplifier of Claim 7, wherein the delay comprises a resistor and the first path is configured to establish capacitance.

10. (Original) The amplifier of Claim 7, wherein the input signal is at a frequency of greater than 300 MHz.

11. (Withdrawn) The amplifier of Claim 7, wherein the current mirror comprises two or more current mirrors arranged as a differential current mirror.

12. (Withdrawn) The amplifier of Claim 11, further comprising one or more cross-coupled capacitors between the two or more current mirrors in the differential current mirror, wherein the

capacitors have capacitance values selected to extend the bandwidth of the differential current mirror.

13. (Withdrawn) The amplifier of Claim 7, further comprising at least one device configured to provide positive feedback to the current mirror to extend the bandwidth of the current mirror.

14. (Withdrawn) The amplifier of Claim 13, wherein the at least one device comprises one or more capacitors.

15. (Withdrawn) A method for extending the bandwidth of a differential amplifier comprising:

providing a differential amplifier having a first input node and a second input node and a first output node and a second output node, wherein the first input node and the first output node are associated with a first amplifier and the second input node and the second output node are associated with a second amplifier;

establishing a first capacitance that is cross-coupled between the first input node and the second output node;

establishing a second capacitance that is cross-coupled between the second input node and the first output node; and

providing a differential inputs signals to the differential amplifier wherein the cross-coupled first capacitance and the cross-coupled second capacitance extend the bandwidth of the differential amplifier.

16. (Withdrawn) The method of Claim 15, wherein the differential amplifier comprises one or more differential configured current mirrors.

17. (Withdrawn) The method of Claim 15, further comprising providing at least one delay element configured to maintain an AC ground at a differential amplifier output.

18. (Withdrawn) The method of Claim 17, wherein the at least one delay element comprises a resistance and a capacitance.

19. (Withdrawn) The method of Claim 15, wherein the high frequency signal comprises a signal at a frequency of greater than 350 MHz.

20. (Currently Amended) A method for improving high frequency operation of an amplifier comprising:

providing an amplifier having an at least one input, at least one cascade node, and at least one output, wherein there exists two or more signal paths between the at least one input and the at least one cascade node; and

connecting a delay in at least one of the two or more signal paths, the delay configured to modify the transfer function of a signal passing through the at least one signal path to maintain an AC ground at at least one of the cascade nodes.

21. (Original) The method of Claim 20, wherein the delay comprises a semiconductor device.

22. (Original) The method of Claim 20, wherein the amplifier comprises at least one current mirror.

23. (Withdrawn) The method of Claim 20, further comprising connecting at least one element configured to provide positive feedback to the amplifier, the at least one element connected between the at least one input and the at least one output.

24. (Withdrawn) The method of Claim 23, wherein the at least one element configured to provide positive feedback comprises at least one cross-coupled capacitor.